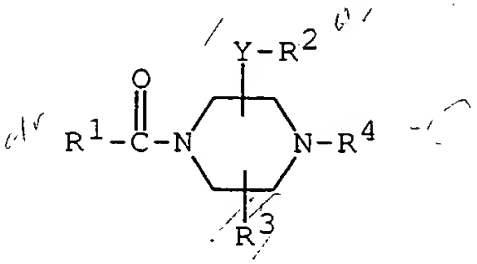
C L A I M S

1. A compound of the formula :



wherein
Y is bond or lower alkylene,
R^1 is aryl which may have substituent(s),
R^2 is aryl or indolyl, each of which may have substituent(s),
R^3 is hydrogen or lower alkyl,
R^4 is pyridyl(lower)alkylamino(lower)alkynyl;
N-(lower alkyl)-N-[pyridyl(lower)alkyl]amino-(lower)alkyl;
hydroxy(lower)alkoxy(lower)alkyl;
lower alkanoyl(lower)alkoxy(lower)alkyl;
phenyl(lower)alkyl which has hydroxy(lower)alkyl or morpholinyl(lower)alkyl;
ar(lower)alkoxycarbonyl;
(2-pyridyl)(lower)alkyl which may have 1 to 3 substituent(s) selected from the group consisting of lower alkyl, lower alkoxy, lower alkoxycarbonyl, mono(or di or tri)halo(lower)alkyl and halogen;
(3-pyridyl)propyl which may have lower alkoxy or amino;
(3-pyridyl)butyl which may have lower alkoxy or amino;
pyridyl(lower)alkenyl which may have lower alkoxy or amino;
(2-pyridyl)(lower)alkynyl which may have 1 to 3

substituent(s) selected from the group consisting of lower alkyl, lower alkoxy, lower alkoxycarbonyl, mono(or di or tri)halo(lower)alkyl and halogen;
(3-pyridyl)(lower)alkynyl which may have lower alkoxy or amino;
pyridyl, thiazolyl, imidazolyl or pyrazolyl, each of which may have substituent(s);
imidazolyl(lower)alkyl which may have 1 or 2 substituent(s) selected from the group consisting of lower alkyl, lower alkynyl, ar(lower)alkyl, pyridyl(lower)alkyl, mono(or di or tri)halo(lower)alkyl and halogen;
pyrazolyl(lower)alkyl which may have hydroxy(lower)alkyl, carboxy(lower)alkyl, lower alkoxycarbonyl(lower)alkyl, morpholinyl(lower)alkyl or morpholinylcarbonyl(lower)alkyl;
thiazolyl(lower)alkyl which may have lower alkyl;
piperidyl(lower)alkyl which may have hydroxy(lower)alkyl or lower alkoxy;
morpholinyl(lower)alkyl which has 1 or 2 substituent(s) selected from the group consisting of ethyl, hydroxy(lower)alkyl, halo(lower)alkyl and lower alkoxy(lower)alkyl;
morpholinyl(lower)alkyl which has lower alkyl and lower alkoxy(lower)alkyl;
(3,5-dimethylmorpholino)(lower)alkyl;
morpholino(lower)alkenyl which may have lower alkyl or lower alkoxy(lower)alkyl;
(2- or 3-morpholinyl)(lower)alkenyl which may have lower alkoxycarbonyl;
pyrrolidinyl(lower)alkynyl which may have lower alkoxy(lower)alkyl;
morpholinyl(lower)alkynyl which may have 1 or 2 substituent(s) selected from the group consisting of ethyl, propyl, isopropyl, isobutyl,

spirocyclo(lower)alkyl, lower alkoxy(lower)alkyl, hydroxy(lower)alkyl, carboxy(lower)alkyl, di(lower alkyl)carbamoyl, lower alkoxycarbonyl and halo(lower)alkyl;

morpholinyl(lower)alkynyl which has methyl and lower alkoxy;

(dimethylmorpholino)(lower)alkynyl;

homomorpholinyl(lower)alkynyl which have halogen;

(morpholinylamino)propyl which may have lower alkanoyl;

thiomorpholinyl(lower)alkynyl which may have substituent(s);

homomorpholinylamino(lower)alkyl;

thiomorpholinylamino(lower)alkyl; or

saturated heterocyclicimino(lower)alkyl,

saturated heterocyclicaminocarbonyl(lower)alkyl or

saturated heterocyclic(lower)alkoxy(lower)alkyl,

each of which may have substituent(s),

provided that when

R^4 is 2-[N-methyl-N-(3-pyridylmethyl)amino]ethyl,

3-(3-pyridyl)propyl,

3-(3-pyridyl)-2-propynyl,

4-[(2-methoxymethyl)pyrrolidino]-2-butynyl,

4-thiomorpholino-2-butynyl,

3-(morphlinoamino)propyl,

4-morpholino-2-butenyl,

4-morpholino-2-butynyl, or

4-(3,3-dimethylmorpholino)-2-butynyl, then

R^1 is not 3,5-bis(trifluoromethyl)phenyl,

and a salt thereof.

2. The compound of claim 1, in which

Y is lower alkylene,

R^1 is C_6-C_{10} aryl which may have 1 or 2 substituent(s) selected from the group consisting of mono(or di

or tri)halo(lower)alkyl, halogen, lower alkylamino, di(lower)alkylamino and nitro,

R^2 is C_6-C_{10} aryl or indolyl, each of which may have 1 to 3 substituent(s) selected from the group consisting of lower alkyl, mono(or di or tri)halo(lower)alkyl, lower alkylenedioxy, hydroxy, hydroxy(lower)alkyl, lower alkoxy, lower alkylamino and di(lower)alkylamino,

R^3 is hydrogen, and

R^4 is pyridyl(lower)alkylamino(lower)alkynyl;

(2-pyridyl)propyl which may have 1 to 3 substituent(s) selected from the group consisting of lower alkyl, lower alkoxy, lower alkoxycarbonyl, mono(or di or tri)halo(lower)alkyl and halogen;

pyridyl, thiazolyl, imidazolyl or pyrazolyl, each of which may have 1 or 2 substituent(s) selected from the group consisting of lower alkyl, ar(lower)alkyl and pyridyl(lower)alkyl;

imidazolyl(lower)alkyl which has 1 or 2 substituent(s) selected from the group consisting of lower alkyl, lower alkynyl, ar(lower)alkyl, pyridyl(lower)alkyl, mono(or di or tri)halo(lower)alkyl and halogen;

(2-methyl-1H-imidazol-4-yl)(lower)alkyl which has 1 or 2 substituent(s) selected from the group consisting of isopropyl, lower alkynyl, ar(lower)alkyl, pyridyl(lower)alkyl, mono(or di or tri)halo(lower)alkyl and halogen;

(5-methyl-1H-imidazol-4-yl)(lower)alkyl which has 1 or 2 substituent(s) selected from the group consisting of isopropyl, lower alkynyl, ar(lower)alkyl, pyridyl(lower)alkyl, mono(or di or tri)halo(lower)alkyl and halogen;

piperidyl(lower)alkyl which may have hydroxy(lower)alkyl or lower alkoxy;

morpholinyl(lower)alkyl which has 1 or 2 substituent(s) selected from the group consisting of ethyl, hydroxy(lower)alkyl, halo(lower)alkyl and lower alkoxy(lower)alkyl;
morpholinyl(lower)alkyl which has lower alkyl and lower alkoxy(lower)alkyl;
(3,5-dimethylmorpholino)(lower)alkyl;
morpholino(lower)alkenyl which may have lower alkyl or lower alkoxy(lower)alkyl;
(2- or 3-morpholinyl)(lower)alkenyl which may have lower alkoxycarbonyl;
pyrrolidinyl(lower)alkynyl which may have lower alkoxy(lower)alkyl;
morpholinyl(lower)alkynyl which may have 1 or 2 substituent(s) selected from the group consisting of ethyl, propyl, isopropyl, isobutyl, spirocyclo(lower)alkyl, lower alkoxy(lower)alkyl, hydroxy(lower)alkyl, carboxy(lower)alkyl, di(lower alkyl)carbamoyl, lower alkoxycarbonyl and halo(lower)alkyl;
morpholinyl(lower)alkynyl which has methyl and lower alkoxy(lower)alkyl;
(dimethylmorpholino)(lower)alkynyl; or
homomorpholinyl(lower)alkynyl which may have halogen.

3. The compound of claim 2, in which
Y is lower alkylene,
R^1 is phenyl which has 1 or 2 substituent(s) selected from the group consisting of trihalo(lower)alkyl, halogen, lower alkylamino, di(lower)alkylamino and nitro,
R^2 is phenyl or indolyl, each of which have 1 or 2 substituent(s) selected from the group consisting of lower alkyl, trihalo(lower)alkyl, lower

alkylenedioxy, hydroxy, hydroxy(lower)alkyl, lower alkoxy, lower alkylamino and di(lower)alkylamino,

R^3 is hydrogen, and

R^4 is (2-pyridyl)propyl which may have 1 to 3 substituent(s) selected from the group consisting of lower alkyl, lower alkoxy, mono(or di or tri)halo(lower)alkyl and halogen;

morpholinyl(lower)alkyl which has 1 or 2 substituent(s) selected from the group consisting of ethyl, hydroxy(lower)alkyl, halo(lower)alkyl and lower alkoxy(lower)alkyl;

morpholinyl(lower)alkynyl which may have 1 or 2 substituent(s) selected from the group consisting of ethyl, propyl, isopropyl, isobutyl, spirocyclo(lower)alkyl, lower alkoxy(lower)alkyl, hydroxy(lower)alkyl, carboxy(lower)alkyl, di(lower alkyl)carbamoyl, lower alkoxycarbonyl and halo(lower)alkyl.

4. A compound of claim 3, which is selected from the group consisting of

(1) (2R)-1-[3,5-Bis(trifluoromethyl)benzoyl]-4-[4-((3S)-3-ethylmorpholino)-2-butynyl]-2-[(1H-indol-3-yl)methyl]piperazine,

(2) (2R)-1-[3,5-Bis(trifluoromethyl)benzoyl]-2-(3,4-dimethylbenzyl)-4-[2-((2S)-2-methoxymethyl-morpholino)ethyl]piperazine,

(3) (2R)-1-[3,5-Bis(trifluoromethyl)benzoyl]-2-(3,4-dimethylbenzyl)-4-[2-((3R)-3-methoxymethyl-morpholino)ethyl]piperazine,

(4) (2R)-1-[3,5-Bis(trifluoromethyl)benzoyl[-2-(3,4-dimethylbenzyl)-4-[2-((2R)-2-methoxymethyl-morpholino)ethyl]piperazine,

(5) (2R)-1-[3,5-Bis(trifluoromethyl)benzoyl]-2-[(1H-indol-3-yl)methyl]-4-[2-((2S)-2-methoxymethyl-

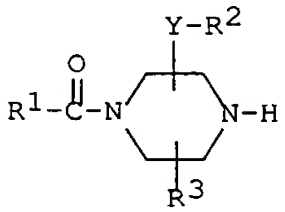
morpholino)ethyl]piperazine, and

(6) (2R)-1-[3,5-Bis(trifluoromethyl)benzoyl]-4-[2-((3R)-3-ethylmorpholino)ethyl]-2-[(1H-indol-3-yl)-methyl]piperazine

or a pharmaceutically acceptable salt thereof.

5. A process for the preparation of the compound of claim 1 or a salt thereof, which comprises,

(1) reacting a compound of the formula (II) :



(II)

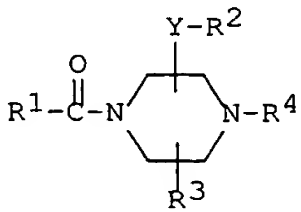
wherein R^1, R^2, R^3 and Y are each as defined in claim 1, or a salt thereof, with a compound of the formula (III) :

$$W_1\text{-}R^4 \qquad \text{(IV)}$$

wherein R^4 is as defined in claim 1 and

W_1 is a leaving group,

or a salt thereof to give a compound of the formula (I) :

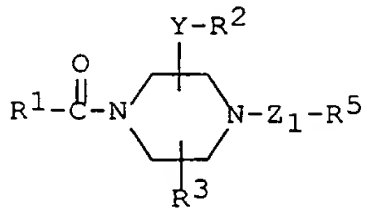


(I)

wherein R^1, R^2, R^3, R^4 and Y are each as defined in

claim 1, or a salt thereof,

(2) subjecting a compound of the formula (Ia) :



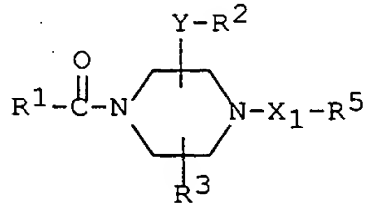
(Ia)

wherein R^1, R^2, R^3 and Y are each as defined above,

R^5 is 2-pyridyl which may have 1 to 3 substituent(s) selected from the group consisting of lower alkyl, lower alkoxy, lower alkoxycarbonyl, mono(or di or tri)halo(lower)alkyl and halogen; or 3-pyridyl which may have lower alkoxy or amino, and

Z_1 is lower alkynylene,

or a salt thereof to a reduction reaction to give a compound of the formula (Ib) :



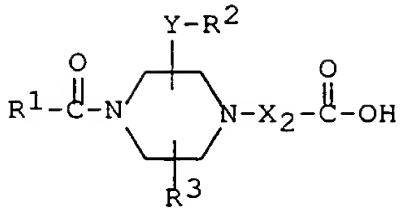
(Ib)

wherein R^1, R^2, R^3, Y and R^5 are each as defined above, and

X_1 is lower alkylene,

or a salt thereof,

(3) reacting a compound of the formula (III) :

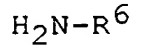


(III)

wherein R^1, R^2, R^3 and Y are each as defined above, and

X_2 is lower alkylene,

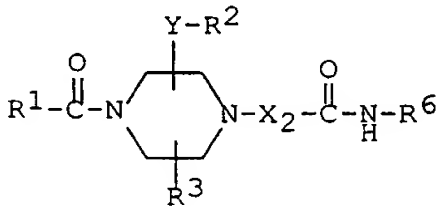
or its reactive derivative at the carboxy group or a salt thereof with a compound of the formula (V) :



(V)

wherein R^6 is saturated heterocyclic which may have substituent(s),

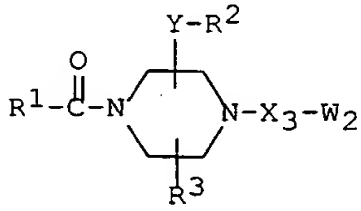
or a salt thereof to give a compound (Ic) :



(Ic)

wherein R^1, R^2, R^3, R^6, X_2 and Y are each as defined above,

(4) reacting a compound of the formula (VI) :



(VI)

wherein R^1, R^2, R^3 and Y are each as defined above,

X_3 is lower alkylene and

W_2 is a leaving group,

or a salt thereof with a compound of the formula (VII) :

$$H\text{-}R^7 \qquad \text{(VII)}$$

wherein R^7 is pyridyl(lower)alkylamino;

N-(lower alkyl)-N-[pyridyl(lower)alkyl]-amino;

1-imidazolyl which may have 1 or 2 substituent(s) selected from the group consisting of lower alkyl, lower alkynyl, ar(lower)alkyl, pyridyl(lower)alkyl, mono(or di or tri)halo(lower)alkyl and halogen;

1-pyrazolyl which may have hydroxy(lower)alkyl, carboxy(lower)alkyl, lower alkoxycarbonyl(lower)alkyl, morpholinyl(lower)alkyl or morpholinylcarbonyl(lower)alkyl;

piperidino which may have hydroxy(lower)alkyl or lower alkoxy;

morpholino which has 1 or 2 substituent(s) selected from the group consisting of ethyl, hydroxy(lower)alkyl, halo(lower)alkyl and lower alkoxy-(lower)alkyl;

morpholino which has lower alkyl and lower alkoxy(lower)alkyl;

3,5-dimethylmorpholino;

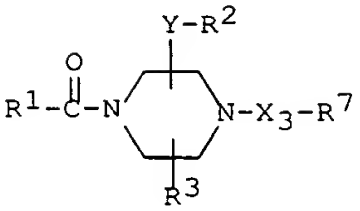
morpholinylamino which may have lower alkanoyl;

homomorpholinylamino; or

thiomorpholinylamino,

or a salt thereof to give a compound of the formula

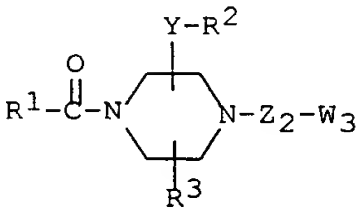
(Id) :



(Id)

wherein R^1, R^2, R^3, R^7, X_3 and Y are each as defined above,
or a salt thereof,

(5) reacting a compound of the formula (VIII) :

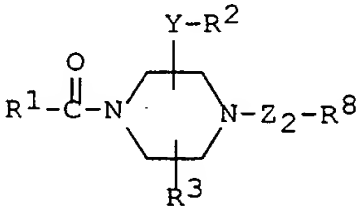


(VIII)

wherein R^1, R^2, R^3 and Y are each as defined above,
Z_2 is lower alkenylene, and
W_3 is a leaving group,
or a salt thereof with a compound of the formula (IX) :

$$H-R^8 \qquad (IX)$$

wherein R^8 is morpholino which may have lower alkyl or lower alkoxy(lower)alkyl,
or a salt thereof to give a compound of the formula (Ie) :

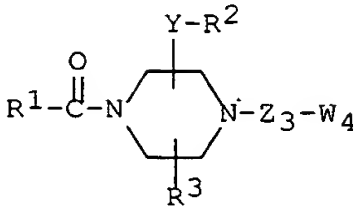


(Ie)

wherein R^1, R^2, R^3, R^8, Y and Z_2 are as defined as above,

or a salt thereof,

(6) reacting compound of the formula (X) :



(X)

wherein R^1, R^2, R^3 and Y are each as defined above,

Z_3 is a lower alkynylene and

W_4 is a leaving group,

or a salt thereof with a compound of the formula (XI) :

$$H-R^9 \qquad (XI)$$

wherein R^9 is pyrrolidino which may have lower alkoxy(lower)alkyl;

morpholino which may have 1 or 2 substituent(s) selected from the group consisting of ethyl, propyl, isopropyl, isobutyl, spirocyclo(lower)alkyl, lower alkoxy(lower)alkyl, hydroxy(lower)alkyl, carboxy(lower)alkyl, di(lower alkyl)carbamoyl, lower alkoxycarbonyl and halo(lower)alkyl;

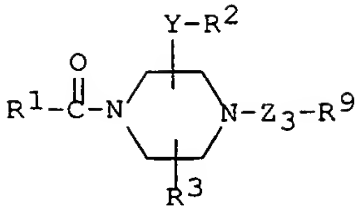
morpholino which has methyl and lower alkoxy;

dimethylmorpholino; or

homomorpholino which has halogen,

or a salt thereof to give a compound of the formula

(If) :



(If)

wherein R^1, R^2, R^3, R^9, Y and Z_3 are each as defined above,
or a salt thereof.

6. A pharmaceutical composition which comprises, as an active ingredient, a compound of claim 1 or a pharmaceutically acceptable salt thereof in admixture with pharmaceutically acceptable carriers.

7. A compound of claim 1 for use as a medicament.

8. A method for treating or preventing Tachykinin-mediated diseases which comprises administering an effective amount of a compound of claim 1 or a pharmaceutically acceptable salt thereof to human being or animals.

9. A compound of claim 1 for use as Tachykinin antagonist.

10. Use of a compound of claim 1 for manufacture of a medicament for treating or preventing Tachykinin-mediated diseases.